

REMARKS

Claims 1, 2, 4, 5, 7-9 and 14-20 are all the claims pending in the application. Claims 3, 6 and 10-13 have been previously canceled without prejudice or disclaimer.

Claim Rejections - 35 U.S.C. § 102

Claims 5 and 9 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Baden (U.S. Patent No. 2,327,237). Applicant respectfully traverses this rejection because Baden fails to teach or suggest each and every claimed element. Particularly, Baden at least lacks a roller run-out preventing portion formed into a curved line smoothly connecting to the first pocket surface and having a radius of curvature protruding toward the pocket.

As shown in Figs. 4, 6, and 7, one embodiment of the invention consistent with that set forth in claim 5 is a retainer for rolling bearings comprising: a rolling element receiving pocket 1 for receiving a rolling element, wherein said pocket 1 comprises a first pocket surface 1a facing toward the revolving direction Y of the retainer; said pocket is defined by a pair of ring-shaped side plates 3 and a pair of pillars 2 each having end portions which are respectively connected to the ring-shaped side plates; a first pocket surface 1a is formed on each of the pillars; the first pocket surface 1a is formed in an arc-shaped configuration (R1) in a cross section along the radial direction of the retainer; roller run-out preventing portions 1d are formed at end portions of the pillars in the radial direction Z of the retainer; and a sectional configuration of the run-out preventing portion 1d along the radial direction of the retainer on the pillar side is formed into a curved line smoothly connecting to the first pocket surface 1a and having a radius of curvature R2 protruding toward the pocket.

More specifically, as shown in Fig. 7 for example, the pocket surface 1a has a first radius of curvature R1 and the roller run-out preventing portions 1d are formed in a curved line having a second radius of curvature R2 protruding toward the pocket.

As discussed in response to the previous Office Action, Baden at least lacks a roller run-out preventing portion formed into a curved line smoothly connecting to the first pocket surface and having a radius of curvature protruding toward the pocket. Yet in order to support an anticipation rejection, the reference must teach or suggest each and every element of the claimed invention.

The Examiner first asserts that Baden teaches that the pocket surfaces can be provided with a curved surface of different radii of curvature. (*See* Office Action at page 4, item 6, lines 1-3). However, even if Baden were considered as teaching a surface with different radii of curvature, it would not teach the specific configuration of claims 5 and 9. For example, it still would not specifically teach a roller run-out preventing portion formed into a curved line smoothly connecting to the first pocket surface and having a radius of curvature protruding toward the pocket. The specific configuration set forth in claims 5 and 9 contributes to preventing damage to the roller and an ease of insertion of the roller into the pocket. (*See* specification page 26, line 23 to page 27 line 12). Without the teachings of the subject application, there would be no motivation for providing Baden with the specific configuration as claimed.

The Examiner also asserts that the edge of the run out preventing portion is inherently a rounded edge because no edge is perfectly sharp. (*See* Office Action at page 4, item 6, lines 5-8). First, Baden specifically teaches that the edge of the run out portion is formed to points (37,

38) and is a fine edge. (*See* Baden page 2, left column, lines 65-70). The Examiner's assertion that the edge is rounded is specifically against the teaching of Baden. Furthermore, in view of the totality of teachings of the subject application, it is clear that the radius of curvature set forth in claims 5 and 9 results in a true rounded edge. Neither the claims, nor the specification, imply that a microscopic imperfection in a fine edge would be considered a curve. Additionally, one of ordinary skill in the art would not view any such microscopic imperfection as meeting the claim language. Therefore, the Examiner's assertion that the fine edge of Baden meets the claimed radius of curvature is incorrect.

The Examiner also asserts that a fillet meets the radius of curvature feature recited in claims 5 and 9. (*See* Office Action at page 4, item 6, lines 3-5 and 8-9). As an initial matter, Baden does not teach or suggest a fillet, and certainly does not teach or suggest a fillet at an edge of a run out preventing portion. Because Baden does not itself teach or suggest a fillet, the Examiner must provide some evidence of motivation for providing the feature. A fillet is a rounded filling of the internal angle between two surfaces. The edge of the alleged run out preventing portion of Baden is not an internal angle between two surfaces, but instead forms a fine edge. Thus, a fillet would not be used at the edge points 37 and 38 of Baden, because they are an edge, not an internal angle. Further, even if a fillet is known, the Examiner must provide motivation for providing a fillet at the particular locations set forth in claims 5 and 9. A fillet being known is not sufficient to establish that one would be motivated to provide it at the at the locations as claimed.

At least for the above reasons, claims 5 and 9 are allowable over Baden.

Claim Rejections - 35 U.S.C. § 103

A) Claims 1, 2, 4, 7, 8, 16 and 20

Claims 1, 2, 4, 7, 8, 16 and 20 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Baden. Applicant respectfully traverses this rejection in view of the following arguments.

Claim 1 sets forth a pillar with a chamfer portion provided between the pillar and an outside or inside diameter surface of the retainer. As discussed in the specification on page 26 at lines 5-24, a chamfer portion provided at one of these positions improves the lubricating capability of the device. The Examiner acknowledges that Baden does not teach a chamfer portion. In fact, as discussed above, Baden specifically teaches that the edge of the run out portion is formed to points (37, 38) and is a fine edge. (*See* Baden page 2, left column, lines 65-70). A chamfered edge is specifically against the teaching of the Baden fine edge.

The Examiner must identify the suggestion or motivation for one of ordinary skill in the art to have included chamfer portions at the specific position recited in claim 1. It is insufficient for the Examiner to merely indicate that chamfer portions are known, the Examiner must identify the motivation to provide them at the specific locations set forth in claim 1. Since it is against the teachings of Baden, and Baden does not recognize the lubrication advantages of providing a chamfer portion, there is a lack of motivation to provide the chamfer portions at the specific location set forth in claim 1.

Claims 2 and 4 depend from claim 1 and are therefore allowable at least because of their dependency.

Claims 7, 8, 16 and 20 are allowable for reasons similar to those given with respect to claim 1.

Finally, claims 16 and 20 depend from claims 5 and 9 respectively. The Examiner's proposed modification to Baden to include a chamfer portion fails to make up the above-noted deficiencies of Baden with respect to claims 5 and 9. Therefore, even if Baden were modified as suggested by the Examiner, Baden would not teach or suggest all of the claimed element of claims 5 and 9 and therefore certainly would not teach or suggest all of the elements of dependent claims 16 and 20.

B) Claims 15 and 17-19

Claims 15 and 17-19 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Baden. Applicant respectfully traverses this rejection in view of the following arguments.

First, claim 15 and 17-19 depend from one of claims 1 and 7-9. The Examiner does not cite any further references against claims 15 and 17-19. The Examiner's proposed modification of Baden with regards to claims 15 and 17-19 fails to make up for the above noted deficiencies with respect to claims 1 and 7-9. Since even the proposed modified Baden does not teach or suggest every element of claims 1 and 7-9, it certainly would not teach or suggest each element of dependent claims 5 and 17-19.

Additionally, claims 15 and 17-19 are further allowable because Baden fails to teach or suggest a roller run out preventing portion which is equal to or less than a roller effective length and more than 0.75 of the roller effective length. In previous Office Actions, the Examiner has alternately rejected claims which include the roller run out preventing portion length under §102

and §103. In the current Office Action the Examiner rejects claims 15 and 17-19 under §103. As discussed in our Amendment filed April 29, 2003, to support the rejection under §103, the Examiner must show that the prior art recognized the roller run out preventing portion as a result-effective variable. (*See* page 11 of the Amendment filed April 29, 2003 and MPEP 2144.05). The Examiner has still failed to establish that the length of the roller run out preventing portion is a result-effective variable, and therefore the rejection is improper. In order to support a rejection under §102 the Examiner would have to show that the cited reference explicitly or implicitly teaches or suggests each and every feature. Baden fails to explicitly or implicitly teach the claimed feature and therefore a rejection under §102 would also be improper. Therefore, in addition to their dependency, claims 15 and 17-19 are additionally allowable because of the claimed roller run out portion lengths.

Conclusion

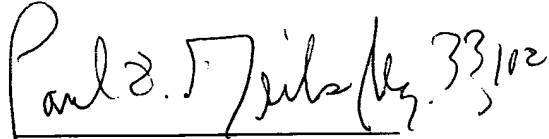
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

RESPONSE UNDER 37 C.F.R. § 1.116
U.S. Application No. 09/559,820

Attorney Docket No. Q59071

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

Handwritten signature of Paul J. Schmidt in cursive, with the date 3/31/02 written to the right.

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